DOCUMENT RESUME

ED 225 369 FL 013 415

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TITLE	An Analysis of Second Language Performance in an Early French Immersion Program: Grades 3, 4 and 5.
INSTITUTION	Protestant School Board of Greater Montreal (Quebec).
SPONS AGENCY	Quebec Dept. of Education, Quebec.
PUB DATE	Sep 80
NOTE	67p.
PUB TYPE	Reports - Research/Technical (143)
EDRS PRICE	MF01/PC03 Plus Postage.
DESCRIPTORS	Audiolingual Skills; *Communicative Competence (Languages); Elementary Education; *Error Analysis (Language); Fles; *French; Grade 3; Grade 4; Grade 5; *Immersion Programs; Language Research; Language Usage; *Second Language Learning; Skill Development; *Syntax; Testing
IDENTIFIERS	*Quebec (Montreal)

ABSTRACT

Research was conducted to investigate the development of linguistic competence in early French immersion programs. Fifty-five students in grades 3, 4, and 5 were administered a test of oral production in French. Twenty-seven grammatical features were examined by means of a detailed error analysis. The results show that there was little improvement in performance from grade 3 to grade 5, and the features that were mastered at the end of grade 5 were either "unmarked" or invariant forms. The results were then compared to those previously obtained for grades 1 and 2. The comparison shows that competence in the second language improves from first to third grade and then remains stable from grade 3 to grade 5. Possible reasons for these findings are discussed in terms of intensity of instruction at each grade level, and the basic approach to second language teaching in immersion programs. Suggestions are made for the integration of second language teaching into the teaching of content subjects. (Author)

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ED225369

AN ANALYSIS OF SECOND LANGUAGE PERFORMANCE IN AN EARLY FRENCH IMMERSION PROGRAM: GRADES 3, 4 AND 5

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Instructional Services Department

The Protestant School Board of Greater Montreal

September 1980

Acknowledgements

This study was made possible by a research grant to the Instructional Services Department, The Protestant School Board of Greater Montreal, from le ministère de l'Education, gouvernement du Québec.

I would like to express my appreciation to the teachers and students for their help and cooperation.

I would also like to extend a special note of thanks to Miss Margaret Johnston, who was the principal of Westpark School at the time this research was carried out, and to Mrs. B. Corkhill, the school secretary.

Résumé

Le but de ces travaux de recherche a été d'évaluer le développement de l'habilité linguistique en français des élèves des classes d'immersion primaire. Un test d'expression orale en français a été administré à cinquante-cinq élèves de 3ième, 4ième, 5ième année. Vingt-sept structures grammaticales ont été examinées à l'aide d'une analyse détaillée des fautes commises. Les résultats ont démontré que (1) de la 3ième à la 5ième année il y a eu peu d'amélioration dans l'expression orale et (2) les structures grammaticales maîtrisées à la fin de la 5ième année étaient des formes non-fléchies ou des formes invariables. Par la suite, les résultats ont été comparés avec ceux de la 1ère et de la 2ième année obtenus dans une étude précédente. Cette comparaison démontre que l'habilité linguistique s'améliore de la 1ière à la 3ième année et puis demeure stable de la 3ième à la 5ième année. Deux facteurs qui pourraient causer ces résultats sont discutés: (1) l'intensité de l'enseignement en français à chaque niveau et (2) la méthodologie de l'enseignement d'une langue seconde dans un programme d'immersion. Il est suggéré d'intégrer l'enseignement de la langue seconde à l'enseignement des matières.

Summary

The purpose of this research was to study the development of linguistic competence in early French immersion programs. Fifty-five students in grades 3, 4 and 5 were administered a test of oral production in French. Twenty-seven grammatical features were examined by means of a detailed error analysis. The results show that (1) there was little improvement in performance from grade 3 to grade 5 and (2) the features that were mastered at the end of grade 5 were either "unmarked" or invariant forms. The results were then compared to those previously obtained for grades 1 and 2. The comparison shows that linguistic competence improves from grade 1 to grade 3 and then remains stable from grade 3 to grade 5. Possible reasons for these findings are discussed in terms of (1) intensity of instruction at each grade level and (2) the basic approach to second language teaching in immersion programs. Suggestions are made for the integration of second language teaching into the teaching of "content" subjects.

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Over the past decade a considerable number of empirical studies have been conducted across Canada to assess the effectiveness of French immersion programs (Barik & Swain, 1978; Genesee, 1978, 1979; Lewis, Note 1; Lewis, Note 2; Shapson & Kaufman, 1976; Swain & Barik, 1976 etc.). The results show that students attending these programs achieve a much higher level of second language competence than students receiving the regular 30 - 50 minutes a day of French language instruction. However, recently there has been growing concern about the immersion students' failure to reach a satisfactory level of linguistic accuracy in their second language performance (Hamayan, Note 3; Spilka, 1976; Selinker, Swain & Dumas, 1975). The findings of these researchers suggest that in an environment where there is a lack of peer models additional instructional measures must be taken in order to avoid the development of a pidgin type dialect. In order to incorporate such corrective measures into the program those in charge of second language education must be provided with a description of the exact nature of the problem. Thus, it is not enough to know that Johnny frequently says *J'ai a in grade 1, since the error may only be a temporary stage in the child's developing grammar. The real issue is the characterization of the immersion students' speech patterns after a number of years in an early immersion program and, more specifically, the identification of those errors that persist in the learner's second language performance. This kind of information can, however, only be obtained from studies which assess language development over a number of years.

One such study was started a few years ago at one of the P.S.B.G.M.'s early immersion schools (Adiv, Note 4). In that study the French oral performance in grades 1, 2 and 3 was examined and compared to that in a

French/Hebrew immersion program at the same grade levels. It was found that the students attending the regular P.S.B.G.M. early immersion program had generally fewer errors in their speech patterns than the students attending the French/Hebrew immersion program. The study, however, also indicates that only a limited number of grammatical structures could be considered mastered at the end of grade 3. The results pertaining to that part of the study can be summarized as follows: at the end of grade 3 present tense verbs (except for irregular plural forms), masculine articles and adjectives, plural articles and the elided form of the article had been mastered. Irregular plural verb forms in the present tense, pronouns (except for reflexive pronouns), feminine articles and prepositions were in the process of being mastered. Some progress was made in the learning of the contracted forms of the articles (au, aux, du, des), although the percentage of errors in these forms remained very high. Finally, no significant progress was made in the acquisition of the reflexive pronouns, the past tense of verbs (passé composé), the idiomatic expressions (avoir + sensation and avoir + age), the reduced form de (pas de, beaucoup de) and the feminine adjectives.

The present study was undertaken two years later when the students from grades 1, 2 and 3 were in grades 3, 4 and 5 respectively. This study thus represents a follow-up to the study summarized above.

The Program

The immersion program in grades 3, 4 and 5 differs very much from that in grades 1 and 2 with respect to the amount of exposure to the second language. From kindergarten through grade 2 instruction is entirely in French except for a weekly period of physical education and library. In grade 3 English language arts is introduced and instruction time in French is reduced to 60% of the day. Nevertheless, all core subjects, such as mathematics and science, are still taught in French. Moreover, art, music and drama are also partially taught in French. From grade 4 onward instruction time in French is reduced by another 20%. Mathematics and science are now taught in English and social studies is the only core subject taught in French, aside from French language arts. Art, music and drama continue to be taught once bi-weekly in French. Thus, from grade 3 onwards the program shifts from a full French program to a bilingual French/English program with instruction time in French reduced to 2/5 of the curriculum in grades 4, 5 and 6.

Method

Subjects

The students selected for this study were in grades 3, 4 and 5 of an early immersion program at the P.S.B.G.M. All the students were native English speakers and all had been tested previously in grades 1, 2 and 3 respectively (Adiv, Note 4). However, several students had left over the two-year interval between the testing periods, so that there were fewer students in grade 4 than there had been in grade 2.

Furthermore, the grade 5 group included two students whose grade 3 test results had not been reported in the previous study. The number of students tested at each grade level was, therefore, as follows:

Grade 3	Grade 4	Grade 5
19	15	21

As in the previous study, the students came from two different classes at each grade level and there were again slightly more girls than boys.

Test Description

Two testing techniques were used: a short oral interview and a picture based test. The oral interview was used to elicit structures related to age. The picture based test consisted of ten sets of 2-5 pictures each. The pictures were constructed so as to elicit all of the linguistic structures that were to be examined and that were not elicited by the oral interview. In order to maintain the communicative aspect of oral production each set of pictures contained a small story. Nine of the ten sets were the same as those used in grades 1, 2 and 3. The tenth set was added in order to provide more contexts for the elicitation of idiomatic expressions.

Procedure for Administering the Tests

All the students were tested individually. Each test (oral interview and pictures) lasted approximately 15 minutes. The entire session was tape recorded. The interview took place first and was followed by the picture-based test. Sets I and IX of the pictures were introduced by narrating part of the story and asking the child to complete the story. This was done in order to situate the story in the past. In other sets

the student was asked to tell what he/she saw in the pictures or to point out differences between two pictures. The student was never corrected or provided with the lexical items he/she lacked to complete a statement. Additional questions and expressions urging the student to continue his/her narration were frequently interjected, especially when the grammatical structure that was to be elicited had not been obtained. All questions were, however, worded so as not to use the particular structure that was to be elicited. All the tests were administered in late spring.

Procedure for Analysis of the Data

All the tapes were transcribed using a conventional French orthographic transcription. When the form was ambiguous with respect to spelling a phonetic transcription was used, e.g.,

*Les petites filles /alle/ à l'école.[1]
(Les petites filles vont à l'école). "The little girls are going to school."

Only grammatical errors were analyzed. The errors were classified according to five major grammatical classes: pronouns, verbs, articles, adjectives and prepositions. Each major class, except for the class of preposition, was further subdivided into secondary classes. Each of these secondary classes will be briefly described below.

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[1] The asterisk (*) indicates that the sentence is grammatically incorrect. The part between the slashes indicates a phonetically transcribed word. In such a transcription the letter "e" represents the sound of "é", the sign "ə" represents the sound of "e" as in petite and the sign "ɛ" represents the sound of "è".

I Pronouns

Four different classes of pronouns were examined:

a) Third person masculine subject pronouns.

b) Third person feminine subject pronouns.

The masculine and the feminine subject pronouns included singular and plural pronouns since the singular/plural distinction pertains, in most cases, only to the written forms. However, only pronouns pertaining to human referents were included.

c) Object pronouns.

These pronouns included direct and indirect object pronouns in all persons. The pronoun en was also included in the analysis. This pronoun was, however, classified separately because its usage differs from that of the other object pronouns.

d) Reflexive pronouns.

These pronouns also included all persons.

Errors included:

1. Errors in gender in the subject pronouns, e.g.,

*Il parle.
(Elle parle.) "She speaks."

2. Errors in form, i.e., errors in case, person, gender and number in the object pronouns, e.g.,

*Il la parle.
(Il lui parle.) "He talks to her."

3. Errors in place, i.e., errors in the position of the pronoun in relation to other elements in the sentence, e.g.,

*Marie regarde le.
(Marie le regarde.) "Marie looks at him."

4. Omission, i.e., the absence of a pronoun in an obligatory context, e.g.,

*Un chien a mordu.
(Un chien m'a mordu.) "A dog bit me."

5. Intrusion, i.e., the use of a pronoun in a context where it is not required, e.g.,

*Les pompiers s'arrêtent le feu.
(Les pompiers arrêtent le feu.) "The firemen stop the fire."

II Verbs

Five different classes of verbs were examined:

a) Third person singular present indicative.

b) Third person plural present indicative.

c) Passé composé.

Included in the présent tense verbs were all instances of the verb avoir (to have) when this verb was not used as an auxiliary, as part of an idiomatic expression, such as il a faim (he is hungry) or as part of the expression il y a (there is) and all instances of the verb être (to be) when this verb was not used as an auxiliary. In the third person plural verbs which are phonetically distinct as well as verbs which are phonetically not distinct from the corresponding third person singular were included. In the passé composé all persons were included.

Reflexive verbs were counted as regular verbs since, aside from the reflexive pronoun, which was analysed separately, these verbs are conjugated as regular verbs using the auxiliary être in the passé composé.

d) Infinitive

This class contained all instances of the infinitive including those where the infinitive was used with a semi-auxiliary, e.g., elle va venir (she is going to come).

e) Idiomatic expressions.

This class contained special usages of the verb avoir (to have) when the corresponding English structure would require the verb "to be". Two types of structures were examined: (1) structures which express sensations, e.g., il a froid (he is cold) and (2) structures pertaining to the expression of a person's age, e.g., j'ai huit ans (I am eight years old). The first and third person singular and third person plural were included in this class.

Errors included:

1. Errors in the inflectional suffix of the present indicative, e.g.,

   *Elle sortir de la cuisine.
   (Elle sort de la cuisine.) "She goes out of the kitchen."

2. Errors in the form of the infinitive, e.g.,

   "Il va pour /prəne/ le chien.
   (Il va prendre le chien.) "He goes to take the dog."

3. Confusion of avoir and être both as regular verbs in the present indicative and in the idiomatic expressions, e.g.,

   *La fille a dans la chambre.
   (La fille est dans la chambre.) "The girl is in the room."

   *Le petit garçon est froid.
   (Le petit garçon a froid.) "The little boy is cold."

4. Errors in the passé composé which were further subdivided according to:

a) Errors in the auxiliary

(1) Omission of the auxiliary, e.g.,

*Il tombé.
(Il est tombé.) "He fell."

(2) Confusion between avoir and être, e.g.,

*Elle a parti.
(Elle est partie.) "She left."

Errors in person and/or number were not included since they do not relate specifically to the use of the auxiliary.

b) Errors in the form of the past participle

*Elle a /prɔne/ le gâteau.
(Elle a pris le gâteau.) "She took the cake."

c) Errors in choice of tense, i.e., choice of tense other than a passé composé in a context where the passé composé was obligatory, e.g.,

*Le petit garçon raconte qu'un chien le mord.
(Le petit garçon raconte qu'un chien l'a mordu.) "The little boy tells that a dog bit him."

III Determiners

Three types of determiners were examined: (a) specific, (b) non-specific, (c) possessive. Each of these classes was further subdivided according to gender and number. In addition to the nine subclasses thus obtained, three subclasses of determiners not related to gender and number were examined. Because gender and number were the major factors underlying the first nine subclasses, the following classification was used.

a) Masculine singular determiners

The specific determiner le
The non-specific determiner un
The possessive determiners mon, ton, son....

b) Feminine singular determiners

The specific determiner la
The non-specific determiner une
The possessive determiners ma, ta, sa....

c) Plural determiners

The specific determiner les
The non-specific determiner des
The possessive determiners mes, tes, ses....

The non-specific determiners un and une included instances of the corresponding indefinite articles (English "a") and instances of the numeral quantifier "one".

The non-specific determiner des included instances of what is traditionally referred to as the indefinite article and the partitive article. The listing of the latter as a distinct grammatical subclass has not been maintained here because such a classification is much debated at the present time (Tanasee, 1972).

The possessive determiners included the forms notre, votre, leur and nos, vos, leurs. The forms notre, votre, leur were classified either as masculine or feminine depending on the gender of the noun in that particular noun phrase. The forms nos, vos, leurs were classified with the plural possessive determiners.

d) Special forms of determiners

The elided form l'
The contracted forms au, aux, du, des
The reduced form de

The elided form is the form of the specific determiners le and la in front of a noun starting with a vowel sound, e.g. l'oiseau (the bird).

The contracted forms are derived from the contraction of the prepositions à and de with the masculine singular determiner le and

the plural determiner les.

The reduced form de is derived from either the non-specific determiners or the contracted forms du and des when used after an advert of quantity, e.g. beaucoup de (much/many) or after the negative particle pas e.g., je n'ai pas de temps (I don't have time).

Errors included:

1. Errors in gender, e.g.,

   *le maman.
   (la maman.) "The mother."

2. Errors in number, e.g.,

   *mon deux frères.
   (mes deux frères.) "My two brothers."

3. Incorrect choice of the type of determiner needed in a specific context, e.g.,

   *J'aime un chocolat.
   (J'aime le chocolat.) "I like chocolate."

4. Omission of the article in an obligatory context, e.g.,

   *les lapins et oiseaux
   (les lapins et les oiseaux.) "The rabbits and the birds."

5. Doubling of the article, e.g.,

   *le l'arbre.
   (l'arbre.) "The tree."

6. Failure to use the elided, contracted or reduced forms of the article, e.g.,

   *le arbre.
   (l'arbre.) "The tree."

   In the case of the contracted forms, the form was only counted wrong if the child used the correct article, e.g.,

*à le garçon.
(au garçon.) "To the boy."

If the child, however, said: *à la garçon the error was classified as an error in the masculine article since the form à la by itself is correct.

In the case of the reduced form de, all instances of failure to produce the correct form were counted as errors, e.g.,

*Il n'a pas un livre.
(Il n'a pas de livre.) "He doesn't have a book."

*Il a beaucoup des livres.
(Il a beaucoup de livres.) "He has many books."

IV. Adjectives

Two different classes of adjectives were examined:

a) Masculine adjectives

b) Feminine adjectives

Singular and plural adjectives were included in each of the above classes since, in oral expression, number is mostly ambiguous in adjectives.

Errors included:

1. Errors in gender, e.g.,

*le petite garçon.
(le petit garçon.) "The little boy."

Because of the extreme variability noted in the speech patterns of second language learners (Andersen, 1978) and because of the process of neutralization, which may influence the choice of an adjectival form (Setton, Note 5), it was decided to classify errors of gender in the adjective independently of errors of gender in the article,

thus in

*le petit fille.
(la petite fille.) "The little girl."

the article le and the adjective petit were counted as two separate errors.

2. Errors in form when that form is not related to gender, e.g.,

*la porte est /uvre/.
(la porte est ouverte.) "The door is open."

3. Errors in place, i.e., errors in the position of the adjective in relation to the noun, e.g.,

*des bleus yeux.
(des yeux bleus.) "Blue eyes."

*une fleur belle.
(une belle fleur.) "A beautiful flower."

V. Prepositions

Because of the difficulty in establishing clearly definable subclasses, it was decided not to subdivide this class.

Errors included:

1. Substitution errors, i.e., the use of a wrong preposition, e.g.,

*Elle téléphone pour la police.
(Elle téléphone à la police.) "She calls the police."

2. Omission, i.e., the absence of a preposition in an obligatory context, e.g.,

*Elle demande le monsieur si...
(Elle demande au monsieur si...) "She asks the gentleman if..."

3. Intrusion, i.e., the use of a preposition in a context where it is not required, e.g.,

*Les écureuils cherchent pour des noix.
(Les écureuils cherchent des noix.) "The squirrels are looking for nuts."

Method of Analysis

Since length of discourse can influence the number of errors made by a speaker, errors were calculated as a function of the number of obligatory contexts. Obligatory contexts are defined as those occasions created by the child for the use of a given structure, although the child may not provide the required form of that structure (Dulay and Burt, 1974).

For each child all the obligatory contexts in each grammatical class were counted on condition that there was a minimum of two such contexts in a given grammatical class. The obligatory contexts of those secondary classes belonging to the same major class were then summed. Next, the mean number of obligatory contexts in each secondary class and in each major class was computed according to grade. Since the mean thus obtained is an arithmetic mean for the group, that mean may be lower than two in those cases where not all the children provided obligatory contexts in a given grammatical class.

Next, the errors produced in each grammatical class were counted and compiled according to grade (grades 3, 4, 5). For each of these three groupings, the total number of errors in each grammatical class was divided by the respective number of obligatory contexts for that class, yielding an error ratio for each grammatical class. All error ratios were multiplied by 100 and expressed as percentages.

For each grammatical class a X^2 test was used to determine whether the percentages of errors in the three grades differed significantly from one another. Where significant differences among the three grades were found, an extension of the Scheffé test (Marascuilo, 1971) was used to determine which pairs of grades were significantly different. All the X^2

tests results were obtained from raw scores of the data, i.e., from the comparison of the correct and incorrect number of occurrences in each grammatical class.

Results

The results obtained from the error analysis are described below according to the order in which the grammatical classes were presented in the previous section. The mean number of obligatory contexts for each major grammatical class and for each secondary class is summarized in Table 1. The statistical analyses of the results of the error analysis are given in Table 2.

Before discussing the errors made by the students, it is of interest to look at their quantitative performance. In the previous study, which had looked at grades 1, 2 and 3 (Adiv, Note 4), a steady increase had been noted in the number of obligatory contexts for each of the grammatical classes and subclasses. In the present study, however, there is little difference across the three grades in the number of these contexts (Table 1), suggesting that by grade 3 the students had fully acquired the vocabulary elicited by the tests. On the other hand, the lack of increase in the quantitative performance could also be an indication of a certain reluctance on the part of the students to elaborate on the test stories beyond the visual content presented in the pictures.

I Pronouns

In the major class of pronouns there is practically no difference in the percentage of errors between grade 3 (23%) and grade 4 (24%), but

there is a significant decrease from grade 4 to grade 5 (20%). However, the overall decrease from grade 3 to grade 5 fails to reach statistical significance. Furthermore, if the 10% error threshold is adopted as a criterion for mastery (Dulay & Burt, 1974) the class of pronouns cannot yet be considered mastered at the end of grade 5. The question arises as to how the errors are distributed across the different subclasses of the pronouns.

a) Third person masculine subject pronouns.

The percentage of errors in the third person masculine subject pronouns is very low (grade 3 = 2%; grade 4 = 3%; grade 5 = 1%) and these pronouns (il, ils) can be considered mastered at all three grade levels. The results are not surprising since the proportion of errors in this subclass was already below the 10% error threshold in grades 1 and 2 (Adiv, Note 4). Almost all the errors consisted of the substitution of the feminine form elle for the required masculine form il.

b) Third person feminine subject pronouns.

The pattern of development of the third person feminine subject pronouns (elle, elles) is irregular. There is an increase in the percentage of errors from grade 3 (17%) to grade 4 (24%) followed by a decrease from grade 4 to grade 5 (15%). Consequently, the decrease from grade 3 to grade 5 is not significant. Moreover, the percentage of errors in grade 5 fails to reach down to the 10% threshold criterion. This finding is surprising since only subject pronouns with human referents were included in the analysis. Closer examination of the data reveals that errors in these pronouns consisted mainly of the substitution of the masculine forms il/ils for the required

feminine form elle/elles. Moreover, the errors occurred only in two types of contexts. First, they occurred when the pronoun was not in the beginning of the sentence. In fact, the incorrect form was frequently used after the correct form had been produced in the earlier part of the sentence, e.g.,

*Elle marche pour voir le gâteau et il pense....
(Elle va voir le gâteau et elle pense....) "She goes to see the cake and she wonders ...."

The second type of context in which the masculine form was substituted for the required feminine form was when the pronoun referred to more than one (feminine) subject, e.g.,

*Ils (les petites filles) vont à l'école.
(Elles vont à l'école) "They (the little girls) are going to school."

While the first type of error occurred only infrequently, the latter type was produced by almost all of the students. The error may be caused by a process of neutralization (Greenberg, 1966) whereby the masculine form (ils), which is also used in contexts where subjects of both genders are present, becomes the dominant form.

The only other type of error in the subject pronouns was omissions. These occurred, however, only in 3% of the obligatory contexts at each grade level.

c) Object Pronouns

Direct and indirect object pronouns

The percentage of errors in the direct and indirect object pronouns decreases significantly from grade 3 (73%) to grade 4 (56%), but there is no further decrease from grade 4 to grade 5 (57%). Furthermore, the percentage

of errors in grades 4 and 5 is still relatively high and this grammatical class is, therefore, not yet mastered at the end of grade 5.

As had been the case in the lower grades (Adiv, Note 4), omission continues to be the most frequent type of error at all three grade levels (70% of all the errors in the object pronouns). There were slightly more errors in the form of the object pronoun (19% of all the errors) than in the placement of the pronoun within the sentence structure (11% of all the errors).

The cause of the deviant structures is difficult to determine. All three types of errors have been noted in the speech of young native speakers (Adiv, Note 4; Bautier-Castain, 1977; Lazure, Note 6). On the other hand, mother-tongue interference could be reinforcing not only errors in the placement of the pronoun (where the French structure contrasts with the corresponding English structure), but also errors in form and omissions. Thus, in the following example:

*Elle le dit...	
(Elle lui dit...)	"She tells him..."

the error could be attributed to the learner's failure to distinguish between direct and indirect objects, an error sometimes made by young native speakers. However, the error could also be caused by transfer from English where there is no distinction in the form of the direct and indirect object pronouns.

In the case of omission errors, mother-tongue interference is even more probable in structures such as:

Qui a mangé le gâteau?	"Who ate the cake?"
*J'ai mangé.	"I did."

It should be noted that the English structure is not a translation of the corresponding French sentence, but rather a native-like response to the relevant question.

These findings suggest that mother-tongue interference may be less frequent when it entails only a one-to-one correspondence in structure between the mother tongue and the second language (as in the case of pronoun placement) and more frequent when it results in the simplification of a given structure in the second language (as in the case of omission errors).

The Pronoun "en"

The percentage of errors in the pronoun en is extremely high at all grade levels and there is practically no decrease from grade 3 (94%) to grade 5 (93%). All the errors were omissions. It should be noted that such errors are still found in the speech of 8 year-old native speakers (Bautier-Castain, 1977). On the other hand, deviant structures such as:

*Ce garçon a de l'argent et l'autre n'a pas.	
(Ce garçon a de l'argent et l'autre n'en a pas.)	"This boy has money and the other doesn't."

once again suggest that interference from English may also be causing these omissions. It is possible that the errors are so persistent because mother-tongue interference and the inherent complexity of this form reinforce each other.

d) Reflexive Pronouns

The pattern of development of the reflexive pronoun is irregular due to a significant increase in the proportion of errors from grade 3 (63%) to grade 4 (85%). The subsequent decrease from grade 4 to grade 5 (60%) is also significant, but there is practically no difference in the percentages between grade 3 and grade 5. Moreover, the proportion of errors is still relatively high at the end of grade 5.

Closer examination of the reflexive pronoun errors reveals that in grades 3 and 5 omissions constituted the major type of error, whereas in grade 4 approximately half the errors consisted of the intrusion of a pronoun in a context which did not require it. However, more than half the errors of this type were produced by one student, hence the relatively higher percentage of errors in grade 4 does not seem to represent a general trend in the acquisition of the reflexive pronoun. Here again, the source of the errors seems ambiguous. Young native speakers use these pronouns relatively early and their errors are more errors in form than omissions (Adiv, Note 4). Furthermore, the corresponding forms do exist in English. It is possible that the errors are caused by the lack of correspondence between the English and French structures containing these pronouns.

In summary, this part of the study indicates that (1) the percentage of pronoun errors does not decrease significantly across the three grades, except in the case of the object pronouns, (2) masculine subject pronouns are the only subclass of pronouns that can be considered mastered at the end of grade 5.

II Verbs

Of the five grammatical classes examined, the verb class contains the largest number of obligatory contexts (Table 1). Moreover, there were no omissions in this class, hence the obligatory contexts represent the number of verbs actually produced. The results from the error analysis (Table 2) indicate that there is no change in the percentage of errors from grade 3 (21%) to grade 5 (21%). However, since mastery of the different verb forms can vary greatly among the various subclasses, the pattern

of development in each of these subclasses may be more revealing with regard to what aspects of the verb have actually been acquired.

a) Third Person Singular Present Indicative

This form was the most frequently produced verb form and the percentage of errors is well below the 10% error threshold in all three grades (grade 3 = 4%, grade 4 = 3%, grade 5 = 5%). Closer examination of the data reveals that these findings apply to verbs where the forms of the first and third person are homonymous (e.g., je chante, il chante), as well as to verbs where the forms differ phonetically (e.g., j'ai, elle a). Most of the errors that were recorded seem to be caused by phonological approximation, e.g.,

*Le petit garçon pleut.
(Le petit garçon pleure.) "The little boy cries."

b) Third Person Plural Present Indicative

In the third person plural present indicative there is a slight decrease from grade 3 (55%) to grade 5 (48%). This decrease is, however, not significant and, moreover, close to 50% of the plural verb forms are still produced incorrectly at the end of grade 5.

When the deviant plural forms are examined it becomes apparent that most of the errors were produced in verbs of the third conjugation. More specifically, of the following verbs:

boire	"drink"
lire	"read"
mettre	"put"
prendre	"take"
venir	"come"
vouloir	"want"

almost none were produced correctly even in grade 5. In most cases the students simply substituted the uninflected singular form for the required plural form. Only in one case was the form */byv/ (boivent) (they drink) recorded, suggesting that attempts at differentiating between the singular and plural forms are rare. On the other hand, the plural forms of the verbs avoir (have) and être (be) seem to be well mastered in grades 4 and 5. With regard to the verbs aller (to go) and faire (to do) the pattern of production is very irregular and the third person singular forms va (goes) and fait (does) are still substituted for the plural forms vont (they go) and font (they do) about half the time. This finding is surprising, both because of the high frequency with which these verbs are used and because these plural forms are reminiscent of the plural forms ont (they have) and sont (they are), which seem to have been mastered.

c) Passé Composé

The pattern of development of the passé composé is irregular. There is a significant decrease in the percentage of errors from grade 3 (39%) to grade 4 (26%). This decrease is, however, followed by an increase between grade 4 and grade 5 (35%). Consequently the overall decrease in the proportion of errors from grade 3 to grade 5 is not significant. It is of interest to note that the number of obligatory contexts provided in grade 4 is smaller ($\bar{X}$ = 11.3) than those in grade 3 ($\bar{X}$ = 14.3) and in grade 5 ($\bar{X}$ = 15.2). It is possible that the grade 4 students may have been avoiding to some extent the use of the passé composé because of its complexity and, hence, had fewer opportunities to make errors. These findings must, however, be interpreted with care because of the small number of contexts under

discussion. Finally, it should be noted that in none of the three grades does the proportion of errors reach down to the 10% error threshold and the passé composé can, therefore, not be considered mastered at the end of grade 5.

In analyzing the deviant forms two aspects pertaining to the production of the passé composé were considered: (1) the auxiliary and (2) the past participle. In addition to these two types of errors, there were also a few errors in the choice of the tense, i.e., students sometimes failed to provide a passé composé in an obligatory context. These errors constituted, however, only 7% of all the errors in the passé composé.

The Auxiliary

Errors in the auxiliary accounted for most of the errors in the passé composé (Table 2). Furthermore, although the percentage of errors produced in grade 4 (25%) was again lower than those in grade 3 (31%) and in grade 4 (32%), the differences between the three grades are not significant.

Two types of errors in the auxiliary were identified: (1) omission of the auxiliary and (2) confusion between the only two possible auxiliary verbs of the passé composé, i.e., avoir and être.

Omission of the auxiliary constituted 23% of the errors in that subclass; substitution of être for avoir accounted for only 15% of the errors in the auxiliary and substitution of avoir for être accounted for the majority of errors in the auxiliary (62%). This high percentage of errors in the use of the auxiliary être is not surprising since most French verbs are conjugated with the auxiliary avoir. The overgeneralization of this auxiliary can,

therefore, be seen as an attempt by the learner to regularize the conjugation of the passé composé. This trend to substitute the auxiliary avoir for être has also been noted in the speech patterns of different groups of French Canadians (Mougeon & Carroll, 1976).

The Past Participle

The percentage of errors in the past participle is, as noted above, much lower than that of the auxiliary verb. This may be partially due to the fact that most of the French verbs belong to the first conjugation, hence the inflectional suffix of the past participle is invariable for these verbs. Furthermore, this suffix is phonetically identical to that of the infinitive of these verbs. Closer examination of the deviant forms in the past participle shows that only 6% of all the errors in the past participle are in the verbs of the first conjugation. In fact, most errors seem restricted to a limited number of irregular verbs. Moreover the types of deviant forms produced suggest that the students were either overgeneralizing the past participle form of the first conjugation verbs, e.g., */sorte/ for sorti (went out), */coure/ for couru (ran), or they were substituting the third person singular present indicative form for the appropriate past participle, e.g.,

*Il a met. (Il a mis.)	"He put."
*Il est vient. (Il est venu.)	"He came."

It should be noted that *il est vient could also be produced as a present tense by analogy to the English form "he is coming". However, the context from which the above example was taken required a past tense.

Sometimes the same student would use two different deviant forms of the same verb. Moreover, correct and incorrect forms of the past participle were also often produced by the same learner, attesting that the latter seems uncertain of the correct form to use. On the other hand, some past participle forms such as vu (seen) and disparu (disappeared) seem well mastered by the end of grade 4. It is possible that perceptual saliency (Slobin, 1973) plays a role here.

d) Infinitive

Verbs in the infinitive were used in structures containing the verbs vouloir (want) and pouvoir (can) as main verbs and in the futur proche (aller + infinitive). There is no significant difference between the percentages of errors produced in the three grades and in all three cases the proportion of errors is below the 10% error threshold (grade 3 = 6%, grade 4 = 6%, grade 5 = 8%). The infinitive can thus be considered mastered. When the form of the infinitive was incorrect the errors were similar to those noted for the past participle, i.e., they consisted either of overgeneralizations of the infinitive form of verbs in the first conjugation or of the 3rd person present indicative of the same verb.

e) Idiomatic Expressions

As noted above, the idiomatic expressions refer to specific structures which require the use of the verb avoir (to have) as a main verb, whereas the equivalent English structures require the verb "to be". The comparison of the percentages of errors produced in the three grades shows no decrease from grade 3 (54%) to grade 5 (56%). Moreover, the proportion of errors remains relatively high, suggesting that some of the deviant forms

may have become fossilized in the students' speech patterns. Closer examination of the relevant structures reveals that errors were more frequent in structures which express sensations (locutions verbales) than in expressions related to age. The hypothesis that the use of the verb être (to be) in the locutions verbales seems to be well established in the learners' grammar is supported by the finding that the students used this verb in a variety of forms, all of which were grammatically correct although the verb itself was inappropriate, e.g.,

*Je suis froid. (J'ai froid.)	"I am cold."
*Papa et maman sont froid. (Papa et maman ont froid.)	"Daddy and Mummy are cold."
*Il n'était pas froid. (Il n'avait pas froid.)	"He wasn't cold."

It is, of course, possible that these forms are overgeneralized from structures such as:

L'eau est froide.	"The water is cold."

However, structures such as:

*Ils (les animaux) sont faim. (Ils ont faim.)	"They are hungry."

were also frequently produced. Contrary to most other deviant structures discussed in this study, this type of error does not seem to occur in the speech of young native speakers. In fact expressions such as a peur (is afraid) are already produced correctly at the age of 18 months (Guillaume, 1927). Hence, this type of error seems attributable to mother-tongue interference.

Structures pertaining to age were more frequently deviant when the statement was not a complete sentence, e.g.,

Tester:	Quel âge ont ton frère et ta soeur?	"How old are your brother and sister?"
Student:	*Six et huit. (Six and et huit ans.)	"Six and eight."

than when the entire sentence was produced, e.g.,

Mon frère a huit ans et ma soeur a onze ans.	"My brother is eight and my sister is eleven."

These findings suggest that the sentence pattern may have been learned, but exchanges such as the first example above may not be modeled in class.

In summary, this part of the study indicates that (1) the percentage of errors did not decrease significantly across the three grades in any of the subclasses of the verb, (2) the third person singular present indicative, the past participle and the infinitive are the only verb forms that can be considered mastered.

III Determiners

The distribution of errors pertaining to the use of determiners shows that there is a significant decrease in the proportion of errors from grade 3 (30%) to grade 4 (22%), but there is no change from grade 4 to grade 5 (22%). Closer examination of the types of errors produced revealed that the majority of errors were errors of gender and number and these will be discussed according to their distribution in the different subclasses of the determiner. However, there were also some omissions, intrusions and errors in the choice of the appropriate type of determiner, e.g.,

*Il a les souliers de course. (Il a des souliers de course.)	"He has running shoes."

Since the number of these errors was small, their percentages were calculated as a proportion of the total number of errors in the determiner. The results show that there were slightly more omission errors (grade 3 = 4%,

grade 4 = 11%, grade 5 = 8%) than intrusion errors (grade 3 = 4%, grade 4 = 5%, grade 5 = 7%). The analysis also shows that most of the omission errors occurred in the plural forms of the specific determiners; intrusion errors were only found in the elided and contracted forms and errors in the choice of the determiner occurred mainly in the plural form of the non-specific determiner and in noun phrases referring to parts of the body, e.g.,

*Il se lave ses mains.
(Il se lave les mains.) "He is washing his hands."

a) Masculine Singular Determiners

The Specific Determiner "le"

As in the case of the third person masculine subject pronouns, the percentage of errors in the masculine determiner le is very low at all three grade levels and there is practically no difference in the proportion of errors between these grades (grade 3 = 2%, grade 4 = 2%, grade 5 = 3%). Moreover the proportion of errors in all three grades is well below the 10% error threshold and this form of the article can, therefore, be considered mastered.

The Non-Specific Determiner "un"

The pattern of development of the non-specific determiner un differs from that of the determiner le in that the proportion of errors in the former (25%) is much higher than that of the latter (2%) in grade 3. There is, however, a rapid decrease from grade 3 to grade 4 (6%) and, although there is a slight increase from grade 4 to grade 5 (10%) this difference is not significant. Furthermore, the percentage of errors in grade 5 still reaches down to the 10% error threshold, so that this determiner can also be considered mastered in grades 4 and 5. As noted

above, most of the errors were errors in gender, i.e., the students substituted the feminine form une for the required masucline form un. The relatively high percentage of errors in grade 3 is surprising since this type of error was infrequent in the masculine form le. It is possible that the error is caused by an attempt on the part of the learner to avoid the nasal sound /œ̃/ in the masculine non-specific determiner.

The Possessive Determiners "mon, ton, son...."

The distribution of the masculine singular possessive determiners is slightly irregular since the percentage of errors in grade 4 (16%) is higher than that in grade 3 (10%). This difference is, however, not significant. From grade 4 to grade 5 (2%) there is a sharp decrease in the percentage and in grade 5 the proportion of errors is well below the 10% error threshold. These results must, however, be interpreted with care because of the small number of obligatory contexts provided for this subclass (Table 1).

b) Feminine Singular Determiners

The Specific Determiner "la"

The percentage of errors in the specific determiner la decreases significantly from grade 3 (45%) to grade 5 (33%). However, the proportion of errors in grade 5 still fails to reach down to the 10% error threshold and this form can therefore not be considered mastered. Here again, the errors were caused by the substitution of the masculine singular form le for the required feminine form la.

The Non-Specific Determiner "une"

In the non-specific determiner une there is an increase in the proportion of errors from grade 3 (43%) to grade 4 (58%) followed by a

decrease from grade 4 to grade 5 (43%). None of these differences is, however, statistically significant. It is of interest to note that there is practically no difference in grade 3 between the percentage of errors produced in the specific determiner la and that produced in the non-specific determiner une, whereas in grades 4 and 5 the non-specific determiner is produced with a higher proportion of errors than the specific one. Since the errors consisted of the substitution of the masculine form un for the required feminine form une, the results suggest that the learners may continue to have more difficulty in differentiating between the non-specific determiners un/une than between the specific determiners le/la. Moreover, it would seem that, although the phonetic shape of un may be more difficult to handle, the pressure to overgeneralize the masculine determiner is still the more prominant rule in the learner's grammar.

The Possessive Determiners "ma, ta, sa...."

In the feminine possessive determiners there is a significant decrease in the percentage of errors from grade 3 (68%) to grade 4 (38%). However, between grade 4 and grade 5 (39%) there is, once again, almost no difference and the proportion of errors in both grades still fails to reach down to the 10% error threshold. Practically all the errors consisted of the substitution of the corresponding masculine forms for the required feminine forms, i.e., mon was substituted for ma (my), son was substituted for sa (his/her). It should be noted that the choice of the appropriate possessive determiner presents added difficulty for the native-English speaker because in English gender of the determiner is coordinated with the possessor, whereas in French it is determined by the possessed item, e.g., in

*Il dit à son maman...
(Il dit à sa maman...) "He tells his mother."

the incorrect use of *son could be influenced either by the general tendency to overgeneralize the masculine determiners or by the fact that the possessor is a little boy. There were, however, too few instances of possessive determiners to determine which of these two causes may be the prevailing one, especially since in English, gender in the possessive determiners is only apparent in the third person singular.

When the specific, non-specific and possessive determiners are compared with regard to the proportion of errors in the respective masculine and feminine forms, a common pattern of development emerges, namely that the masculine forms are mastered prior to the feminine ones. The overgeneralization of the masculine form, which underlies this pattern, has been noted not only with reference to other immersion students, but also with respect to certain groups of Franco-Ontarians (Harley, 1979). The results of the present study also indicate that the non-specific determiners seem to be more difficult to master than the specific and possessive ones.

c) Plural Determiners

The Specific Determiner "les"

There is a significant decrease in the percentage of errors in the specific determiner les from 12% in grade 3 to 3% in grade 5. Furthermore, in grade 4 (6%) and in grade 5 the proportion of errors is below the 10% error threshold and this form can thus be considered mastered. Errors consisted mainly of the substitution of the plural article des for the required form les and of omission errors, an issue which has been discussed above.

The Non-Specific Determiner "des"

The pattern of development of the non-specific determiner des shows that there is no significant difference in the proportion of errors produced in each of the three grades and, that there is actually a slight increase in the percentages from grade 3 to grade 5 (grade 3 = 13%, grade 4 = 15%, grade 5 = 19%). Thus, here too the non-specific determiner seems more difficult to master than the specific one. Closer examination of the data reveals that errors consisted not only of the substitution of the article les for the required form des but also of the use of du instead of des, e.g.,

*Elle donne du noix à les lapins.
(Elle donne des noix aux lapins.) "She gives the rabbits some nuts.)

This form could be an overgeneralization from structures such as du pain (bread) or du fromage (cheese).

The Possessive Determiners "mes, tes, les...."

The distribution of the plural possessive determiners is very irregular and the proportion of errors increases steadily from grade 1 (8%) to grade 5 (32%). In an attempt to find an explanation for this pattern, the determiners pertaining to the 1st, 2nd and 3rd person singular (mes, tes, ses) were examined separately from those pertaining to the 1st, 2nd and 3rd person plural (nos, vos, leurs). The results show that for the forms mes, tes, ses the percentage of errors is well below the 10% error threshold (grade 3 = 2%, grade 4 = 8%, grade 5 = 5%). Moreover, although there is an increase in the percentage of errors from grade 3 to grade 4, there is also a decrease from grade 4 to grade 5. On the other hand, the results for the plural forms nos, vos, leurs show a high percentage of errors and

a marked increase from grade 4 (53%) to grade 5 (93%). Furthermore, contexts for these forms were practically never provided in grade 3. These findings suggest that the development of the forms nos, vos, leurs in the students' interlanguage may be slow because of their infrequent use by these learners. It is of interest to note that errors in these forms consisted mainly of the substitution of mes, tes, ses for the required nos, vos, leurs, e.g.,

*Les petits garçons courent dans l'eau et ses parents regardent.	
(Les petits garçons courent dans l'eau et leurs parents (les) regardent.)	"The little boys run into the water and their parents are watching (them)."

It is possible that the learner has adopted a single set of plural markers for the possessive determiners, namely that which is phonetically associated with the plural form of the specific and non-specific determiners discussed above.

d) Special Forms of Determiners

The elided form "l'"

There were practically no errors produced in the elided form (grade 3 = 0%, grade 4 = 1%, grade 5 = 2%) and the few errors that were noted were made by one or two children in each grade. This form can, thus, be considered acquired.

The contracted forms "au, aux, du, des"

In the contracted forms there is a significant decrease in the percentage of errors from grade 3 (61%) to grade 5 (34%). However, the proportion of errors fails to reach down to the 10% error threshold in grade 5 and this grammatical feature can, therefore, not yet be considered

mastered. All the errors were due to the failure to contract the preposition with the following determiner. It is interesting that these errors always pertained to the forms au, aux, and des. This finding suggests that the form du may not have been perceived as a contracted form. One type of error which has not been included in the error count of this particular subclass of the determiner, but which nevertheless pertains to the development of the contracted forms, is the overgeneralization of these forms to contexts such as:

*au la mer (à la mer)	"to the sea"
*Elle va au cuisine. (Elle va à la cuisine).	"She goes to the kitchen."

These examples suggest that the learner is actively attempting to incorporate the contracted forms into his interlanguage, but has not yet developed the necessary rules that determine the appropriate contexts in which these forms are used.

The reduced form "de"

Before discussing the errors pertaining to the reduced form de, it should be noted that not all the students produced this structure, hence the number of obligatory contexts for this form is comparatively low (see Table 1). The error analysis shows no significant difference among the three grades in the percentage of errors in the reduced form de. In fact, the informal comparison of the results in each grade indicates a steady increase in the proportion of errors from grade 3 (23%) to grade 5 (48%). Closer examination of the data reveals two interesting aspects of development of this grammatical class. First, no errors were found in the expressions pertaining to quantity, e.g., un peu de, (a little), beaucoup de, (much/many).

Hence, all the errors pertained to the negative form pas de. Second, in grades 3 and 4 all the errors were made by about one fourth of all the students in each grade, whereas in grade 5 more than half of the students made errors in this subclass. It is possible that the structure pas de is initially perceived as a single unit by most students, similar to structures like beaucoup de, but with increased experience in French this hypothesis may be abandoned by the learner since the negative participle can sometimes be followed by a determiner, e.g.,

N'oublie pas ton parapluie.	"Don't forget your umbrella."
Je n'ai pas entendu la cloche.	"I haven't heard the bell."

Furthermore, even the non-specific determiner can be used after pas under certain conditions, usually determined by intonation, e.g.,

Il n'a pas lu un (seul) livre.	"He hasn't read a (single) book."

Thus, the learner's awareness of the variety of contexts in which the determiner can remain unchanged in negative constructions may lead him to perceive the pas + de structure as an exceptional form for which he seems unable to determine the contextual constraints. It may be the case that the development of the structure pas + de follows a pattern similar to that noted for irregular forms in mother-tongue acquisition, namely the form is produced correctly at a first stage, followed by a second stage where there is overgeneralization of the more regular form (Slobin, 1973).

In summary, this part of the study indicates that (1) the masculine singular determiners and the elided form l' are mastered at the end of grade 5, (2) the feminine singular specific and possessive determiners and the contracted forms seem to be in the process of being mastered, (3) there is no progress across the three grades in the feminine and plural forms of the

non-specific determiners, in the plural forms of the possessive determiners and in the reduced form de. Thus, the non-specific and possessive determiners seem more difficult to acquire than the specific determiners. Finally, the reduced form de in the context pas de seems more problematic than the contracted forms.

IV Adjectives

The pattern of development of the adjective shows an initial decrease in the percentage of errors from grade 3 (38%) to grade 4 (31%), followed by a significant increase from grade 4 to grade 5 (43%). Thus, here again, there is no overall improvement in performance.

The majority of errors were errors of gender. Errors in the position of the adjective within the noun phrase accounted for only 6% of all the adjective errors produced in that grade. This proportion increased, however, to 9% in grades 4 and 5. Although the increase is relatively small, it is of interest because this type of error seems attributable to mother-tongue interference and the findings thus suggest that the students may rely more frequently on their mother tongue as they get older.

a) Masculine Adjectives

The distribution of the percentage of errors in the masculine singular adjectives is similar to that noted above, i.e., there is an initial decrease in the proportion of errors from grade 3 (11%) to grade 4 (2%), followed by an increase from grade 4 to grade 5 (10%). However, this percentage of errors in grade 5 still reaches down to the 10% error threshold and the masculine adjectives can thus be considered mastered. All the errors were caused by the substitution of the corresponding feminine forms for the

required masculine forms.

b) Feminine Adjectives

In the feminine adjectives there is no significant difference in the proportion of errors produced at each grade level (grade 3 = 62%, grade 4 = 65%, grade 5 = 63%). Furthermore, the percentages are relatively high when compared to those of the masculine adjectives. This pattern is similar to that noted for the other gender-related classes (pronouns and determiners). However, the percentages of errors in the feminine adjectives are much higher than those in the feminine pronouns and determiners. In fact, except for the omission of the pronoun en, errors in the feminine adjectives were produced proportionally more frequently than any other type of error examined in this study. Aside from a few errors in the position of the adjective which were discussed above, all the errors were due to the use of the uninflected masculine form in contexts requiring the feminine form. The frequency of this error may be due to several factors. First, not all French adjectives have distinct forms in the masculine and feminine, e.g.,

Le crayon est rouge. "The pencil is red."

La pomme est rouge. "The apple is red."

This is all the more pronounced in the spoken language since the letter "e", which marks the feminine inflection of most adjectives, is not pronounced, e.g.,

Le veston est bleu. "The coat is blue."

La robe est bleue. "The dress is blue."

Hence, the inflected feminine form may be viewed once again as an exception and may, therefore, be acquired later (Slobin, 1973).

Second, the masculine form is the shorter form. This is not so in the case of the masculine pronouns and determiners. Moreover, the feminine marker does not change the semantic content of the adjective, as is the case of the pronouns with human referents. There may, therefore, be little pressure for the learner to readjust his grammar with reference to feminine adjectival forms.

In summary, this part of the study indicates that the masculine adjectives can be considered mastered in grades 4 and 5, whereas the feminine forms show no improvement across the three grades.

V Prepositions

The percentages of errors in the prepositions are practically the same in all three grades (grade 3 = 21%, grade 4 = 21%, grade 5 = 22%). Furthermore, the proportion of errors in grade 5 fails to reach down to the 10% error threshold and, therefore, the class of prepositions cannot be considered mastered.

Most of the errors occurred when the preposition did not denote a spatial relationship. Omission errors constituted the highest proportion of all the preposition errors (41%), whereas intrusion errors constituted the lowest percentage of errors (22%). The results also show that omission errors were the only group where the proportion of errors decreased markedly from grade 3 (53% of all the preposition errors in that class) to grade 5 (25% of all the preposition errors in that class). Intrusion and substitution errors, on the other hand, increased slightly across these grades.

Previously it had been noted that certain preposition errors attributed to mother-tongue interference seemed to increase as the learners

became more verbal in French (Adiv, Note 4). Closer examination of the preposition errors in this study reveals that when the source of errors was ambiguous, i.e., they could be traced to both mother-tongue interference and inherent difficulties in the French preposition system, these errors were produced more regularly than when they could be traced to only one of these sources. Thus, for instance, much confusion was noted between the prepositions sur and dessus (both meaning "on") and between the prepositions sous and dessous (under), e.g.,

*Le gâteau, il y avait un petit cerise sur.

This sentence could be rendered either as:

	Sur le gâteau il y avait une petite cerise.	"On the case there was a little cherry."
or:	Le gâteau avait une petite cerise dessus.	"The cake had a little cherry on top."

It would seem that both the English sentence structure and the similarity of the semantic features of the two prepositions contribute to the learner's failure to perceive the contextual constraints for each preposition.

On the other hand, errors which could be attributed mainly to mother-tongue interference, such as omission and intrusion errors, were produced less consistently. Such errors may be caused by what Corder (1979) has termed "borrowing", i.e., the use of a mother-tongue type of structure to fill a momentary gap in the learner's ability to produce the appropriate target language (in this case French) structure, e.g.,

*Ils /sorti/ de l'eau et ils /mi/ les jaquettes sur." (Ils (les garçons) sont sortis de l'eau et ils ont mis les jaquettes.)	"They (the boys) came out of the water and put the jackets on."

The only omission error which was produced consistently at all three grade

levels was the omission of the preposition à (to) in the context téléphoner à quelqu'un (to phone someone). It is difficult to know why this error was so persistent, especially since the omission of à was infrequent in structures such as demander quelque'chose à quelqu'un, where the corresponding English pattern "to ask someone for something" does not require a preposition either. It is possible that the structure *téléphoner quelqu'un is produced by analogy to appeler quelqu'un (to call someone), since both verbs can be used within this context. Here again, the error may not be attributable solely to mother-tongue interference. Hence, it may be the case that the persistence of preposition errors is more closely associated to the cumulative influence of several sources than to that of transfer from the mother tongue by itself.

In summary, the results of this part of the study indicate that (1) there is no overall decrease in the percentage of preposition errors from grade 3 to grade 5; (2) the classification of errors into intrusion, omission and substitution errors indicates that omission errors decrease whereas intrusion and substitution errors increase across the three grades.

Summary and Discussion

In summarizing the findings of this study two aspects of the research have to be borne in mind. First, the research examined language learning at a given point in time and noted those features of the target language (French) which had been mastered according to a given criterion. Second, the research examined language learning longitudinally and recorded the progress made over a period of time. Moreover, it must be remembered that the present study investigated only the students' competence with regard to grammatical accuracy. While this aspect of language development

does not represent the full range of linguistic skills which the learner develops in the second language, its importance with regard to the acquisition of native-like competence must be emphasized.

The findings of this study can now be summarized as follows:

1) Of all the grammatical forms that were examined, ten can be considered mastered at the end of grade 5: the third person masculine subject pronouns, the third person singular present indicative, the past participle, the infinitive, the masculine forms of the specific, non-specific and possessive determiners, the plural form of the specific determiners, the elided form and the masculine adjectives.

2) In the following six grammatical classes there was significant improvement in performance from grade 3 to grade 5: object pronouns (direct and indirect), masculine non-specific determiners, feminine specific and possessive determiners, plural specific determiners and contracted forms of the determiner.

If one compares the grammatical features that have been mastered at the end of grade 5 to those in which progress has been noted across the three grades, one notes that in only two cases (masculine non-specific and plural specific determiners) has there been both progress across the grades and mastery of the feature. In other words, most of the grammatical features mastered at the end of grade 5 had already been mastered in grade 3 and, thus, present no real progress.

Another noteworthy finding is that, in the case of the plural possessive determiners, the proportion of errors actually increases significantly across the three grades. It has been shown that this was due to the older students' increased use of the plural forms nos, vos, leurs.

One crucial question that must be asked is whether there is some common pattern that characterizes the deviant structures of those grammatical features that are neither mastered nor in the process of being mastered. The first thing to be noted is that three of these features pertain to feminine forms. This finding is not surprising since feminine forms are marked forms as opposed to masculine forms which are considered unmarked (Greenberg, 1966), and hence easier to master (Adiv, Note 4, Setton, Note 5). The same differentiation applies to the singular/plural dichotomy in verbs and determiners. It should, however, be noted that the marked/unmarked distinction does not apply equally to all grammatical classes. As discussed in the analysis, non-specific determiners seem to be more difficult to master than specific and possessive ones. Moreover, the percentage of errors in the plural forms of the determiners is much lower than that of the corresponding feminine forms. This may be due to the fact that the category "plural" is semantically based and, since the determiner is mostly the only marker to indicate number in French, this form may be more salient for the learner. It is interesting that this is not the case for plural verb forms, where the semantic content of the stem seems to override the necessity to inflect the verb.

With regard to the other grammatical forms in which there was neither mastery nor progress, the reflexive pronouns, the pronoun <u>en</u> and the idiomatic expressions are noteworthy since all were still produced with more than 50% errors. It will be recalled that in all three cases mother-tongue interference seemed to play an important role in the production of the deviant structures. These findings suggest that in immersion settings the influence of the mother tongue may be an important factor in second language

learning.

The last issue I would like to discuss with reference to the development of the grammatical features under study is the overall pattern of each feature from grade 1 to grade 5. As noted earlier, grades 1 and 2 were examined in a previous study (Adiv, Note 4). However, several of the features analyzed in the present study, such as the possessive determiners, were not included in that study because the number of occurrences of these forms in grades 1 and 2 was too small for meaningful analysis. For the same reason no distinction was made in the previous study between specific and non-specific determiners. Furthermore, the pronoun en was included in the subclass of object pronouns. In order to be able to make comparisons between the two studies, the results of the present study have been recalculated, where necessary, so as to create grammatical classes corresponding to those which were used in the previous study. The results of the error analysis for each grammatical feature are shown in Table 3. Because of certain changes in the test pictures which could affect the number of obligatory contexts for certain features, the X^2 procedure was not used as a basis of comparison. Following Cohen (1976) a difference of 10% in errors between grades was considered an indication of progress towards (or regression from) mastery of a given grammatical feature.

The findings that emerge from the comparison of grades 1 through 5 are the following:

1) Of the eight grammatical classes that can be considered mastered at the end of grade 5 (3rd pers. masc. subj. pronouns, 3rd pers. sing. pres. indicative, past participle, infinitive, masc. sing. determiners, plural determiners, the elided form l', and masc. adjectives) only four had not yet

reached the mastery criterion (error threshold 10%) at the end of grade 1. Moreover, the percentage of errors for these four classes was only slightly above this threshold in grade 1 (infinitive = 14%, past participle = 15%, plural determiner = 11%, masculine adjectives = 11%).

2) In the eight grammatical classes in which there was progress towards mastery (3rd pers. fem. subj. pronouns, object pronouns, reflexive pronouns, 3r' pers. pl. pres. indicative, passé composé, idiomatic expressions, contracted forms of the determiner and prepositions) the improvement occurred between grades 1 and 2 and/or between grades 2 and 3. Only in the case of the object pronouns and the contracted forms was there a decrease of more than 10% errors beyond grade 3.

3) In three grammatical classes (auxiliary, fem. sing. determiners and fem. adjectives) there was no progress towards mastery from grade 1 to grade 5. Moreover, in one case (the reduced form de) there was regression, so that the students in grade 5 made proportionally more errors than the students in grade 1.

These findings seem to imply that the young learner in immersion settings develops an interlanguage based on a maximal simplification of the target language (French) grammar. Moreover, there is little evidence for readjustment of this reduced grammar beyond grade 3. These findings may be partially attributable to a time factor since in grades 4 and 5 the amount of exposure to French is reduced to 2/5 of the curriculum. Furthermore, in many cases, the French courses in these grades are taught in the afternoon, after the students have already spent half of the day communicating in the classroom in their mother tongue. Under these conditions effectiveness of the French program may be greatly reduced. This view seems corroborated

by comments from Professor M. Blanc (Note 7), from England, who recently visited some of the P.S.B.G.M.'s immersion schools and noted that from grade 3 onwards students seem to find it increasingly difficult to express themselves in French. Although Blanc was referring to production skills in general, it would seem that the students' difficulties in communicating stem, at least partially, from their insufficient knowledge of the structure of the language. In order to determine how the development of adequate production skills can be more effectively implemented in the curriculum, it may be useful to examine briefly the methodological approach to language teaching in immersion programs. The rationale underlying the immersion model is that a language is learned best when "language learning becomes incidental to the task of communicating" (Tucker & D'Anglejan, 1976:207). Hence the teaching of subject material or "content" teaching takes precedence over language teaching. The latter is usually restricted to language arts classes and even under that heading grammar constitutes a separate subject of study, often taught without visible relation to the oral communication tasks which the student encounters in other subjects (hereafter referred to as content classes). In fact student speech is only infrequently corrected in content classes so as not to inhibit communication. However, as Mohan (1979) points out, do teachers and students really communicate in content classes?
One problem of the immersion method may be that the learner is continuously under pressure to communicate at a linguistic level which is beyond his competence in the second language. Hence, in order to ensure that the course material is adequately understood, there may be, as Blanc points out, too much emphasis on the development of comprehension skills to the detriment of production skills. Both Mohan and Blanc suggest that it may be beneficial

to exploit the linguistic content of course material and to provide more opportunities for students to initiate interactions than merely respond to teacher guided questions.

The above discussion leads to the conclusion that it may be advantageous to implement throughout the immersion program a more integrated approach to the learning of French and, especially, to the learning of grammatical structures. Such an approach has met with considerable success in Welsh bilingual schools (Beaudoin et al., Note 8). The method used in these schools focuses on two key concepts (Dodson, 1967; 1978). The first is the systematic sequencing of linguistic material. Here, studies such as the present one and teacher observations can help determine the most appropriate order for the introduction of certain linguistic structures. The advantage of such an order is that it addresses itself directly to the difficulties encountered by learners in immersion settings. The second major factor in Dodson's method is the progression from language classes to content classes. Here, it is suggested that the grammatical structures taught in the former be consolidated through disguised drill practice in the latter. Dodson notes that, in order to be successful, such practice sessions must be short and frequent. Moreover, it would seem that the learner would benefit more from the grammar lessons themselves if the content classes provided the framework for these lessons. In this way the learner would have more opportunities to associate the structures he is learning with the contexts that are relevant to his communicative needs. Clearly such an approach requires a tremendous amount of planning since there must be coordination between what is taught in a language class and what is practiced in a content class. Furthermore, the exploitation of course material towards

language teaching must not impede the teaching of the course material itself. On the other hand, this approach may provide the means to compensate for the reduced time of exposure to French in the upper elementary grades.

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Table 1

Mean Number of Obligatory Contexts in each Grammatical Class in Grades 3-5

	Grade 3	Grade 4	Grade 5
(1) Pronouns			
Total	51.5	49.0	54.5
Subj. pronouns			
3rd. pers. masc.	26.5	25.3	28.5
3rd. pers. fem.	13.0	13.0	14.0
Other pronouns			
dir. & indir. obj.	3.3	3.9	2.6
pronoun en	1.9	1.3	2.7
reflexive	4.5	4.5	3.6
(2) Verbs			
Total	91.5	85.0	88.9
Present indicative			
3rd. pers. sing.	48.4	43.5	45.6
3rd. pers. plur.	15.1	16.1	14.2
Passé composé	14.3	11.3	15.2
Infinitive	7.4	6.8	6.8
Idiomatic expressions	6.4	7.4	6.8

Table 1 (cont'd)

	Grade 3	Grade 4	Grade 5
(3) Determiners			
Total	75.3	61.6	68.2
Masculine singular			
specific	14.8	13.8	11.9
non-specific	7.4	5.5	6.1
possessive	3.3	3.0	2.2
Feminine singular			
specific	13.8	10.8	12.0
non-specific	7.8	3.5	6.4
possessive	3.7	4.0	4.1
Plural			
specific	9.1	8.4	9.2
non-specific	7.1	4.9	5.7
possessive	2.6	3.3	2.5
Special forms			
elided form *l*	8.2	9.0	11.1
contracted forms	4.6	3.9	4.4
reduced form *de*	1.6	1.8	1.3

Table 1 (cont'd)

	Grade 3	Grade 4	Grade 5
(4) Adjectives			
Total	24.1	24.2	21.2
masculine adjectives	11.8	10.0	8.8
feminine adjectives	11.4	9.8	11.5
(5) Prepositions			
Total	15.1	16.7	14.2

Table 2

Percentage of Errors in each Grammatical Class in Grades 3-5 (a)

	Grade 3	Grade 4	Grade 5	X^2
(1) Pronouns				
Total	23	24	20	6.903 *
Subj. pronouns				
3rd. pers. masc.	2	3	1	11.627 **
3rd. pers. fem.	17	24	15	5.767 *
Other pronouns				
dir. & indir. obj.	73	56	57	6.450 *
pronoun *en*	94	80	93	3.738
reflexive	63	85	60	12.711 **
(2) Verbs				
Total	21	21	21	0.063
Present Indicative				
3rd. pers. sing.	4	3	5	4.192
3rd. pers. plur.	55	55	48	4.052
Passé composé				
total	39	26	35	7.474 *
auxiliary	31	25	32	3.028
past participle	10	5	10	2.898
Infinitive	6	6	8	1.010
Idiomatic expressions	54	56	56	0.135

Table 2 (cont'd)

	Grade 3	Grade 4	Grade 5	X^2	
(3) Determiners					
Total	30	22	22	31.776	***
Masculine singular					
specific	2	2	3	0.352	
non-specific	25	6	10	18.426	***
possessive	10	16	2	5.076	
Feminine singular					
specific	45	36	33	8.396	*
non-specific	43	58	43	4.260	
possessive	68	38	39	15.947	***
Plural					
specific	12	6	3	12.403	**
non-specific	13	15	19	2.059	
possessive	8	22	32	8.786	*
Special forms					
elided form l	0	1	2	2.608	
contracted forms	61	43	34	13.551	**
reduced form de	23	37	48	4.183	

Table 2 (cont'd)

	Grade 3	Grade 4	Grade 5	X^2
(4) Adjectives				
Total	38	31	43	11.691 **
masculine adjectives	11	2	10	12.167 **
feminine adjectives	62	65	63	0.404
(5) Prepositions				
Total	21	21	22	0.097

* $p < .05$
** $p < .01$
*** $p < .001$

[a] Percentages joined by a line differ significantly from one another according to the Scheffé Extension procedure.

Table 3

Percentage of Errors in each Grammatical Class in Grades 1-5

	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
(1) Pronouns					
3rd. pers. masc. subj.	4	5	2	3	1
3rd. pers. fem. subj.	58	41	17	24	15
Object	94	83	80	62	70
Reflexive	91	69	63	85	60
(2) Verbs					
Present indicative					
3rd. pers. sing.	8	4	4	3	5
3rd. pers. plur.	70	55	55	55	48
Passé composé					
total	51	55	39	26	35
auxiliary	32	42	31	25	32
past participle	15	21	10	5	10
Infinitive	14	11	6	6	8
Idiomatic expressions	86	75	54	56	56

Table 3 (cont'd)

	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
(3) Determiners					
masc. sing.	8	8	10	3	6
fem. sing.	46	47	45	42	47
plural	11	1	12	9	9
elided form l'	2	10	0	1	2
contracted forms	93	95	61	43	34
reduced form de	35	35	23	37	48
(4) Adjectives					
masc. adjectives	11	10	11	2	10
fem. adjectives	57	63	62	65	63
(5) Prepositions					
(totals)	34	25	21	21	22